LISTING OF THE CLAIMS

A complete listing of the claims is provided below. This listing of claims will replace all prior versions and listings of claims in the application.

1. (Cancelled)

2. (Previously Presented) The apparatus of claim 7,wherein said first weir is an organic weir for collecting the organic phase and said second weir is an aqueous weir for collecting the aqueous phase.

3. (Original) The apparatus of claim 2, wherein said settler compartment allows the organic phase and the aqueous phase to coalesce into a top organic phase having a free liquid surface and a bottom aqueous phase, and to form an organic-aqueous interface, and wherein the inlet opening is located above where the organic-aqueous interface is anticipated to form but below the free liquid surface of the organic liquid phase when the settler compartment is filled.

4. (Previously Presented) The apparatus of claim 7, wherein the first weir inlet opening has a height and a location within said front wall of said first weir, and at least a portion of said front wall of said first weir is vertically adjustable such that the height or location of said inlet opening can be adjusted.

5. (Cancelled)

6. (Previously Presented) The apparatus of claim 7, wherein said second partition has a top located at about a level corresponding with the organic free liquid surface when said settler compartment is filled but below said settler compartment top.

7. (Currently Amended) An apparatus for liquid-liquid extraction configured to accommodate at least a first liquid phase and a second liquid phase, comprising:

a settler compartment having a top and a bottom and a back wall;

a first weir located in said settler compartment;

a second weir located in said settler compartment adjacent said first weir;

wherein said first weir includes a front wall with an inlet opening, and said second weir includes a labyrinth section having an inlet opening and at least a first and second partition extending from said settler compartment bottom and at least a third partition having a top end and extending from said settler compartment top and located between said first and second partition, wherein said first partition has a length and said second partition has a length that is longer than the length of said first partition, further comprising:

an adjustable lip having [[one]] a top lip end hingedly connected to the top end of said third partition and angled downwardly away from said top end and towards said back wall of said settler compartment [[into said second weir]] so that fluid flowing over the [[tope]] top end from said labyrinth next flows over said lip and into said settler compartment [[second weir]].

8. (Previously Presented) The apparatus of claim 7, further comprising a lip protruding from said front wall of said first weir and located above said inlet opening.

9. (Previously Presented) The apparatus of claim 7, wherein the bottom of said first weir has a bottom having a front side and a back side and is set at an angle to said settler compartment bottom such that the bottom rear side of said first weir is closer to said settler compartment bottom than the bottom front end of said first organic weir.

10. (Original) The apparatus of claim 9, further comprising a lip protruding from said first weir bottom toward said settler compartment bottom.

11. (Previously Presented) The apparatus of claim 7, further comprising an incline plate, and wherein the first weir has an interior and said incline plate protrudes from said front wall of said first weir into the interior of said first weir and toward said settler compartment top.

12. (Original) The apparatus of claim 11, wherein said incline plate is coupled to said front wall at an angle of about 45 degrees.

13. (Previously Presented) The apparatus of claim 7, wherein:

said settler compartment has a back side and said front wall of said first weir has a left side and a right side and the left side of said first weir is located at a first distance from the back side of said settler compartment and the right side of said first weir is located at a second distance from the back side of said settler compartment, and wherein the first distance and the second distance are not the same.

14. (Previously Presented) The apparatus of claim 7, wherein said settler compartment has a left side and said front wall of said first liquid phase weir has a front side, and wherein an angle is formed by the front side of said front wall and said settler compartment left side at the location where said front wall is attached to said settler compartment, the angle ranging from about 75 degrees to about 105 degrees.

15. (Previously Presented) The apparatus of claim 14, wherein the angle ranges from about 87 degrees to about 93 degrees.

16. (Previously Presented) The apparatus of claim 15, wherein the angle ranges from about 87 degrees to about 89 degrees or from about 91 degrees to about 93 degrees.

17. (Previously Presented) The apparatus of claim 7, further comprises a riser located at the bottom of the first liquid phase weir.

18. (Previously Presented) The apparatus of claim 17, further comprising a sump, and wherein the organic weir has a lowest point, said sump being located at the lowest point of said first organic weir.

19. (Original) The apparatus system of claim 18, wherein the riser includes a tap for draining collected liquid for feeding or recycling to waste.

20. (Cancelled)

21. (Cancelled)

22. (Previously Presented) The apparatus of claim 25, further comprising means for upwardly directing at least a portion of fluid flowing into said first weir means.

23. (Previously Presented) The apparatus of claim 25, further comprising means for directing at least a portion of entrained organic phase away from said second weir means.

24. (Previously Presented) The apparatus of claim 25, further comprising a means for varying at least one of the height or location of said inlet opening.

25. (Currently Amended) An apparatus for liquid-liquid extraction, comprising:

a compartment means for coalescing an organic phase from an aqueous phase, and having a back wall;

a first weir means for collecting said coalesced organic phase located within said compartment means;

a second weir means for collecting said coalesced aqueous phase located within said compartment means adjacent said first weir means, wherein said first weir means includes an inlet opening means for reducing air entrainment;

wherein said second weir means comprises a labyrinth means for enabling at least a portion of entrained organic phase to rise into a quiescent portion of said labyrinth means; and

further comprising a partition wall between the first and second weir means having a top end, and splash reducing means including an adjustable lip having [[one]] a top lip end hingedly connected to the top end of said partition and angled downwardly away from said top end and towards said back wall of said compartment means [[into said second weir]] so that fluid flowing over the top end from said labyrinth next flows over said lip and into said compartment means [[second weir]].

26. (Cancelled)

27. (New) The apparatus of claim 7, wherein said settler compartment has a liquid surface and said lip has a free end terminating below the liquid surface.

28. (New) The apparatus of claim 25, wherein said compartment means has a liquid surface and said lip has a free end terminating below the liquid surface.

29. (New) The apparatus of claim 7, wherein said lip has an airplane wing cross sectional profile shape.

30. (New) The apparatus of claim 25, wherein said lip has an airplane wing cross sectional profile shape.

31. (New) The apparatus of claim 27, wherein said lip has an airplane wing cross sectional profile shape.

32. (New) The apparatus of claim 28, wherein said lip has an airplane wing cross sectional profile shape.